1: McGee E-5 (1894-1895)1898 NU31 Seri NU31

lying ranges and buttes. The most conspicuous inequality of the slopes (partly because of its coincidence with tide-level) is offered by the rugged ranges of Seriland. These may be considered four in number, all approximately parallel with each other and with the coast; the first is a series of eroded remnants (Cerros Anacoretos) from 600 to 1,200 feet in height; the second is the exceedingly ragged Sierra Seri, culminating in Johnson peak 5,000 feet above tide; the third is Sierra Kunkaak, attaining about 4,000 feet in its highest point; the fourth is Sierra Menor, some 2,000 feet high, with the northern extremity sliced off obliquely by marine erosion. The principal arm of Desierto Encinas lies between the first two ranges, El Infiernillo separates the second and third, while a subdesert valley divides the third from the fourth. The valleys correspond more closely than the ranges; if the land level were 100 feet higher the strait and its terminal bays would become an arid valley like the others, while if the sea-level were 500 feet higher the four ranges would become separate islands similar to Angel de la Guarda and others in the gulf. 133

The Sonoran province is notably warm and dry. The vapor-laden air-currents from the Pacific drift across it and are first warmed by conduction and radiation from the sun-scorched land, to be chilled again as they roll up the steeper roof-slope to the crest; and the precipitation flows part way down the slopes, both eastward and westward from the Sierra Madre—literally the Mother (of waters) range. A climatal characteristic of the province is two relatively humid seasons, coinciding with the two principal inflections of the annual temperature-curve, i. e., in January-February and July-August, respectively. In the absence of meteorologic records the temperature and precipitation may be inferred from the observations at Yuma and Tucson,[1] which are among the warmest and driest stations in America, or indeed in the world; though it is probable that such points as Caborca, Bacuachito, and Hermosillo are decidedly warmer and perhaps slightly moister than Yuma. The ordinary midday summer temperature at these points may be estimated at about 110° in the shade (frequently rising 5° or 10° higher, but dropping 20° to 50° in case of cloudiness); the night temperature at the same season is usually 50° to 75°, though during two-thirds of the year it is liable to fall to or below the freezing point. The sun temperature is high in comparison with that measured in the shade, the exposed thermometer frequently rising to 150° or 160°, according to its construction, while black-finished metal becomes too hot to be handled, and dark sand and rocks literally scorch unprotected feet. The leading characteristic of the temperature is the wide diurnal range and the relatively narrow annual range; another characteristic is the uniformity, or periodic steadiness, of the maxima, coupled with variability and nonperiodicity of the minima. 132

[1] The following monthly and annual meteorologic summaries, compiled from United States Weather Bureau records at these stations, have been kindly furnished by Prof. Willis L. Moore, Superintend-

1: McGee E-5 (1894-1895)1898 NU31 Seri NU31

132 The precipitation on the Sonoran province is chiefly in the form of rain; in the winter humid season snow falls frequently on the Sierra Madre and rarely on the outlying ranges; in both humid seasons (and in humid spots at all seasons) dew forms in greater or less abundance. Fog frequently gathers along the coast, especially during the winter and in the midsummer wet season, and sometimes drifts inland for miles. The mean annual precipitation may be estimated at 20 or 25 inches toward the crest and half as much toward the base of the high sierra; thence it diminishes coastward, probably to less than 2 inches; the mean for the extensive plains forming the greater part of the province may be estimated at 3 or 4 inches. The greater part of the precipitation is in

out of the Sonora. The tabulated records represent the observations of twenty years at Yuma and ten years at Tucson.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
Absolute maximum temperature, Fahr.:													
Yuma	81	91	100	105	112	117	110	115	113	100	92	83	110
Tucson	81	85	88	101	100	111	110	100	100	97	89	82	111
Absolute minimum temperature, Fahr.:													
Yuma	22	25	31	39	45	52	61	60	56	41	31	25	22
Tucson	14	20	24	32	35	39	44	49	40	31	23	11	11
Mean maximum temperature, Fahr.:													
Yuma	65.1	70.7	75.3	85.4	93.2	105.3	106.7	104.9	99.6	87.2	75.9	67.4	88.6
Tucson	63.9	67.0	74.5	85.4	91.4	100.3	96.0	94.0	92.3	82.3	71.5	65.7	81.8
Mean minimum temperature, Fahr.:													
Yuma	42.0	45.1	50.0	58.1	65.4	68.6	77.3	77.4	70.3	58.5	48.0	44.7	58.4
Tucson	34.0	41.0	44.0	48.1	55.3	62.6	70.0	70.0	67.3	52.1	42.5	35.1	52.9
Mean temperature, Fahr.:													
Yuma	54.1	57.6	62.5	72.0	77.5	86.9	92.0	90.7	84.4	73.0	61.9	56.0	73.3
Tucson	49.4	53.2	59.5	66.9	73.9	81.5	82.3	82.5	77.7	68.5	57.0	50.0	67.4
Mean precipitation (inches and hundredths):													
Yuma	0.49	0.91	0.78	0.07	0.01	T.	0.14	0.93	0.10	0.32	0.20	0.49	3.94
Tucson	0.75	0.93	0.80	0.27	0.10	0.39	2.06	3.03	1.10	0.33	0.37	0.85	11.10
Prevailing winds:													
Yuma	E.	E.	W.	W.	W.	SW.	S.	S.	NE.	NE.	E.	E.	E.
Tucson	S.	S.	S.	W.	S.	SW.	SE.	SE.	S.	S.	S.	SE.	S.
Average cloudiness (scale 0-10):													
Yuma	2.4	2.4	2.6	1.6	1.3	0.8	1.0	2.3	1.1	1.3	1.7	2.3	1.8
Tucson	3.0	2.9	2.5	1.8	1.0	1.5	4.3	4.4	1.9	1.0	1.8	2.9	2.6

1: McGee E-5 (1894-1895)1898 NU31 Seri NU31

local storms, frequently accompanied by thunder-gusts or sudden tempests, though cold drizzles sometimes occur, especially at the height of the winter humid season. Except where the local configuration is such as to affect the atmospheric movements, the distribution of precipitation is erratic, in both time and space; some spots may receive half a dozen rains within a year, while other spots may remain rainless for several years; and the wet spot of one series of years may be the dry spot of the next. 132

The climatal features of Seriland are somewhat affected by the pronounced topographic features of the district. Snow sometimes falls on Sierra Seri, and probably on Sierra Kunkaak; gales gather about the rugged ranges at all seasons, and sometimes produce precipitation out of season; the extreme heat of midday and midsummer is tempered by the proximity of the tide-swept gulf; and since most of the local derangements tend to augment precipitation and reduce temperature, it would seem safe to estimate the mean annual rainfall of the tract at 4 or 5 inches, and the mean temperature at about 70°, with a mean annual range of some 30° and an extreme diurnal range of fully 80°.

The configuration and climate combine to give distinctive character to the hydrography of the Sonoran province. The melting snows and more abundant rains of the high sierras form innumerable streams flowing down the steeper slopes toward the piedmont plains, or soak into the pervious rocks to reappear as springs at lower levels; sometimes the streams unite to form considerable rivers, flowing scores of miles beyond the mountain confines; but eventually all the running waters are absorbed by the dry sands of the plains or evaporated into the drier air; and from the mouth of the Colorado to that of the Yaqui, 500 miles away, no fresh water ever flows into the sea. During the winter wet season, and to a less extent during that of summer, the mountain waterways are occupied by rushing torrents, rivaling great rivers in volume, and these floods flow far over the plains; but during the normal droughts the torrents shrink to streamlets purling among the rocks, or give place to blistering sand-wastes furlongs or even miles in width and dozens of miles in length, while beyond stretch low, radially scored alluvial fans, built by the great freshets of millenniums. Only a trifling part of the rainfall of the plains ever gathers in the waterways heading in the mountains, and only another small part gathers in local channels; the lighter rains from higher clouds are so far evaporated in the lower strata of the air as to reach the earth in feeble sprinkles or not at all; the product of moderate showers is absorbed directly by earth and air; while the water of heavy rains accumulates in mud-burdened sheets, spreading far over the plains, flowing sluggishly down the slopes, yet suffering absorption by earth and air too rapidly to permit concentration in channels. These moving mud-blankets of the plains, or sheetfloods,[1] are often supplemented by 133

[1] Defined and described in Sheetflood Erosion, Bull. Geol. Soc. Am., vol. VIII, 1897, p. 87.

1: McGee E-5 (1894-1895)1898 NU31 Seri NU31

is approximately doubled at neap tide and tripled at spring tide twice in each twenty-four hours. Then, as the crest of the main debacle advances into the upper gulf beyond Punta Tepopa, the trough of the ebb is already approaching the Tiburon-San Francisquito constriction; and even before the final flooding of El Infiernillo from the north is completed, the waters of Bahia Kunkaak are receding and a tiderip is roaring through Boca Infierno at a rate sufficient to half empty the reservoir of its accumulated volume before the ebb trough has rounded the island to the head of the strait. Thus the effect of the exceptional tides of the gulf and the peculiar configuration of Seriland is to concentrate and accentuate tidal currents in El Infiernillo, and to convert the channel into a raceway for nearly continuous tide rips. According to Dewey, the spring tides are 10 feet and the neaps 7 feet about the northern end of the strait;[1] in December, 1895, the tides about Punta Blanca and Punta Granita were roughly determined as 13 or 14 feet at spring and 7 or 8 at neap, the range varying considerably with the direction and force of the wind; and the consequent current through Boca Infierno was estimated at 4 to 8 miles per hour, the higher velocity of course coinciding with the spring tide. The change in direction of the current is almost instantaneous—indeed, the run is in opposite directions on opposite sides of the narrow strait when the wind sets obliquely—so that the tidal flow is practically continuous. The currents are of course slacker in the body of the strait, but even here suffice to transport coarse sediments; and it is to this agency that the "shoals and sand spits" noted by Dewey[2] and the maintenance of a deep channel through Boca Infierno are chiefly to be ascribed. The materials of Punta Tormenta and Punta Tortuga attest the transportation of pebbles up to 3 or 4 inches in diameter by the combined work of waves and tidal currents.

Like other mountain-bound water bodies, the portion of the gulf washing Seriland is exceptionally disturbed by winds of given velocity by reason of the high angle of incidence; and moreover the exceptionally prominent local configuration disturbs the atmospheric currents in a manner somewhat analogous to that in which the tidal currents are disturbed; so that the winds are highly variable but generally strong. Under the combined action of tide and wind the waters are normally ruffled; choppy seas freely flecked with whitecaps are rather the rule than the exception,[3] and are replaced less frequently by calms than by steadier billows breaking in continuous surf on sand-beaches (figure 5) and dashing into foam-flecked and rainbow-tinted spray-jets, bathing the rocky cliffs for 50 feet above their bases. Sometimes the wind stills suddenly, when the sea sinks to rythmic swells, soon extinguished by reaction from the irregular shores and by the interference of tide-currents; but the swell seldom dies away before the gale springs again.

[1] Publication No. 50, U. S. Hydrographic Office, Bureau of Navigation, 1880, p. 142.
[2] Op. cit., p. 142.
[3] A stiller and navigable condition of the sea is shown in the view of Punta Tgnacio, plate IV.

1: McGee E-5 (1894-1895)1898 NU31 Seri NU31

132 The broad valley between Sierras Seri and Kunkaak, bottomed by El Infiernillo, is especially beset by fierce and capricious gales; the general atmospheric drift is disturbed by the leading and lesser sierras, as well as by temperature convection from the gulf, and eddies are developed in such wise as to send air-currents directly or obliquely up or down the valley. These local or sublocal winds are characteristic. Judging from observations covering several weeks, the valley is wind-swept longitudinally for an average of eighteen or twenty hours daily, the winds ranging from strong breezes to gales so stiff as to load the air with sand ashore and spray asea; and even the calms may be broken

[122]

FIG. 5.—Embarking on Bahia Kunkaak in la lancha Anita.

any minute by sudden gusts and williwaws, passing rapidly as they arrive. Not only waves but wind itself combines with tides to shape the [134] structural features of the valley; nowhere within it do flour-fine sands like those of Desierto Encinas occur, save as a hardly perceptible constituent of the dunes and banks of coarser sand—they have been blown into the sea or beyond the limits of the valley. Throughout the strait so expressively named by its explorers, the capriciousness of the sea 132 culminates, despite the shoalness and the protection from easterly and 133 westerly winds; the storm currents and tide-currents are half the time opposed, raising breakers even when the air is nearly still; eddies and whirls and cross-currents arise constantly, and even at the stillest

1: McGee E-5 (1894-1895)1898 NU31 Seri NU31

hours tumultuous waves come and go sporadically, while about the mile-wide boca the choppy sea sometimes takes the form of spire-like jets, spurting 5 or 10 feet high and breaking into aigrettes of glittering spray in most unwaterlike and wholly indescribable fashion. Dewey described the strait as "unsafe for navigation by any except the smallest class of vessels"; it is safe, indeed, only for portable and indestructible craft like the Seri balsas, which may be put off or carried ashore at will by craftsmen willing to wait for wind and tide, and unpossessed of impedimenta of a sort to be injured by wetting. Of such an environment the balsa is a natural product.

The adjunct islets of Seriland are miniatures of Tiburon in all essential respects, save that they are without fresh water. The largest is San Esteban, a somewhat complex butte rising sharply from the waters in a nearly continuous sea-cliff recording vigorous work by storms and tides; it is occasionally visited by the Seri, chiefly in search of water-fowl and eggs. The most important of the series in Seri economy and mythology is Isla Tasane, off the mouth of Bahia Kino; it is a rugged butte some 600 feet high, rising in wave-cut cliffs on the sea side and pedimented by low spits and banks of sand toward the lea; the sand-banks are literally flocked with pelicans, while other fowl cover the flatter ledges and crowd the crannies of the pinnacle. Isla Turner is a somewhat smaller and still more rugged butte, bounded on both sides by precipitous cliffs, while Roca Foca is merely a great rock shelving upward from the storm-swept waters off the most exposed angle of Tiburon; in the crannies of the former birds nest abundantly, while the lower ledges of both are haunted by seals. Isla Patos, north of Tiburon, is a breeding-place for different water-fowl, and is especially noted as a refuge for ducks; it, too, is for the most part a rocky butte, with a sandy shelf at the eastern base. Beyond San Esteban lies the similar but smaller Isla San Lorenzo, while Isla Salsipuedes and a few other islets stretch thence northward half way to the southern point of Isla Angel de la Guarda, the second-largest island of the gulf. San Lorenzo and the smaller islets are occasionally visited by the Seri, partly for a mineral pigment used in face-painting, partly in quest of game; and they sometimes push on to the larger island to enjoy its fairly abundant game, including the easily taken iguana, amid the ruins of an ancient culture apparently akin to that of southern Mexico. Even the most frequented islets, Tasane and Patos, can be reached only by crossing miles of open sea; but in their way the Seri are as canny navigators as they are skilful boat-builders—it is their habit to hug the shore in threatening weather, to await wind and tide for hours or days together, to set out on distant journeys only when all conditions favor, and in emergency to seize inspiration from the storm like the vikings of old, and lend supernormal power to the control of their craft.

Summarily, the prevailing features of Seriland may be said to be

252 of nutritious material which was ground to powder on their stone ahsts, winnowed in shallow baskets and made into a meal or paste.

764 824 The abundant cacti of many species served several other functions in the domestic economy of the Seris. The thorny cholla whose insipid fruits were not fit to eat and whose spines were a constant threat to the unprotected bodies of the Seris, found one use, nevertheless, in the burial procedure. After a body was partly covered with earth in the three foot deep grave, it was densely overlaid with chollas before leveling, to discourage the coyotes from digging for the body.

396 824 The dry skeletons of the giant cacti provided the long, cylindrical poles used in knocking off ripe pitahayas as well as in all other instances in which a straight, slender pole was needed. Since the advent of the open boat in modern times, the cactus skeleton has come in for a new use, for after trituration between stone ahst and hupf, it was found to yield a satisfactory caulking compound when mixed with sea-lion oil.

312 824 The barrel cacti, *Ferocactus Wislizenii* and *F. Coulteri*, though ordinarily abundant on the Sonoran desert are rare in Seriland and practically absent from Isla Tiburon where they may easily have been exterminated by the improvident Seris during their centuries of occupancy on account of their recognized value as water providers on the wastelands over which the Seris so frequently ventured.

342 [132] 824 These Indians found housing no problem, for, living under a climate in which frost is rare and rain infrequent, they found little need for shelters except for protection against the blazing desert sun. Camps that were occupied for more than a day or two, however, usually saw the appearance of a group of crude sun shelters. These were usually made of long, flexible ocotillo branches, *Fouquieria splendens*, stuck in the sand and fashioned into an arched framework over which a more or less complete covering of brush was piled. If, by the sea, a windbreak were desired, the brush top and siding were usually augmented by the addition of several empty turtle shells.

262 824 On the delta plain of the Rio Sonora, the mesquite, *Prosopis juliflora*, grows in remarkable luxuriance, these gnarled, spiny trees forming an almost continuous open forest 20-40 feet high. Its fruit, consisting of small, hard beans borne in slender, woody pods forms a concentrated, starchy food that the Seris found highly nutritious if not appetizing. In late summer when all fresh vegetable food had withered and disappeared, provided the turtle fisheries had not yet attracted them back to their island, they often spent [252] some weeks gathering the beans and grinding them into a meal which was eaten as a watery atole or as a paste mixed with sea-lion oil. The more straggly and thorny cat's claw mesquite, *Acacia Greggii*, and the ironwood, *Olneya tesota*, also yielded woody beans in limited quantity.

[298] In the deeper gorges of the mountains the Seris found *Guaiacum Coulteri* yielding a berry of medicinal properties and also *Jacquinia pungens* which [534] produced a nut, edible when not quite ripe, and forming a favorite rattle-bead when dry.

Along sandy washes, particularly on the lower flood plain of the llano grows a low, shrubby weed, *Hymenoclea monogyra*. Although during times of drought it shrinks to stunted tussocks, after periods of heavy rain its flourishing fens produce abundant seeds eaten both by the beasts of the plain and formerly by the Seris.

385 [1771] Before the advent of the tin can and the cardboard carton, basketry was an important handicraft among these Indians.

[Text continues on p. 138--Analyst]

9:Malkin E-S (1953-1955)1962 NU31 Seri NU31

I

INTRODUCTION

[13] [12] [36] [22] [46] The territory discussed in this paper is somewhat larger than the historical area occupied by the Seris. While Seri settlements are limited today to a quite narrow range, the Tiburon Island and the coast of Sonora immediately adjacent to it, they are familiar with a far larger region, owing to their periodic trips, either on their own after fish, turtle and game or, occasionally, in the temporary employ of the Mexican fish-traders and even farmers. The further away from Tiburon perimeter, the lesser their familiarity with a locality.

The area is limited by Hermosillo in the east, Punta Penasco and Porto Libertad in the north, and Nogales in the south, and finally it includes also the coast of Baja California which the Seris sometimes visit. It also includes all of the islands within that area, Tiburon, Patos, Rasa, Angel de la Guarda, San Lorenzo and San Esteban.

137 With very minor variations this entire region belongs properly to the Sonoran desert. *Palo Verde, Palo Fierro, Pithaya, Mesquite, Cholla, Sahuaro,* prickly pear, elephant tree and creosote bush are the basic planta. Among the vertebrates, 136 such forms as the Sonoran bighorn, deer, cougar, jumping rat, badger, coyote, skunk, rattlesnake, sidewinder and Gila Monster are most conspicuous and diagnostic. Among the birds are the roadrunner, the raven, as well as many pelagic or littoral birds, the pelican and cormorant among them.

132 The region is one of very low rainfall, limited to the hot summer months, in some places occuring only a few times in a year. Winters are chilly and dry with persistent winds and dust, with the temperature falling down, on rare occasion, to just above the freezing point. Summers are intensely hot, with daily temperatures usually over 100 and the water temperature of the sea along the shore not infrequently as much as 85 degrees. There are great differences between diurnal and nocturnal temperatures, very much influencing the desert life.

134 Within this region there are several different ecological zones or perhaps sub-zones, varying from the alkaline flats like Playa Noriega, and the alkali-and salt-permeated soils of Desemboque to the more bountiful slopes of the mountains and the irrigated mud-flats around Hermosillo.

121 For the sake of distinction, I have selected several of the typical localities or zones as a point of reference either because of their ecological distinctions or because of their signficance as a landmark, readily delineating a peculiar habitat. Personally I am familiar only with some of the

[P. 1A]

[123] *Dono*. It has fallen into sad decay---many buildings in ruins, ditches gone, mill and machinery idle; no water, very few people and a general appearance of slow, peaceful and painless disintegration.

The one redeeming feature is the daughters of the *senor*. Two of them were remaining at home, and in all Sonora I do not believe there are two more charming, modest, industrious as well as lovely maidens than are Laura and Clara Feliz. In addition, they are perfectly artless and very unassuming and retiring. I had with me some slight gifts for Laura and her father whom I had met before, but nothing for Clara, a tall handsome girl of sixteen. Laura thanked me with grace and charm.

After a visit of half an hour we continued on our journey, and after we had travelled about twenty miles more, passing the end mountain of *Siete Cerros*, or Seven Mountains, we reached San Carlos Rancho, another of Yaabel's ranches, containing four and a half square leagues or about forty square miles.

Another very sweet daughter of Feliz's---Lupe, or Guadalupe, lived here. She teaches school with twenty-six Mexican children and a night school for older boys. The school building is a low one-story structure of *carriso* reeds and earth roof. Both wind and sun can come through the cracks. The tables are built of rough boards and the benches had no backs. Everything was as neat and clean as conditions would permit.

At a little Mexican house, whose owner was a friend of Roberto, the wife cooked our meat and coffee and dished up the ever-ready beans. We ate outside the house by the light of a camp fire while a crowd of men and children stood gaping at us and drinking in the news that Roberto brought from the great metropolis. The conversation was a rapid-fire Mexican and sounded like machine guns going off, and this kept up long after Stan and I retired. We slept under a shed. Roberto insisted that I sleep on a bed, instead, with rawhide springs.

The Indians curled up around the camp fire, blankets on top, earth below.

In the morning we ate breakfast in the living room of the stick-mud house, which was poor---so poor, but hospitable. Tortillas of flour and corn, beans and meat were our fare.

We bought a sack of beans and one of corn, twenty pounds each, and then we took a photograph of the school. There were a few extra little girls whose fond mothers had decked out for the occasion. The children had swept the grounds clean and pulled outside the tenderly nursed vines in a jar inside the window, so that they also could be taken.

[131] [132] The dry parched desert is unkind to domestic plants and flowers and these are always blooming in jars or ollas or tin cans under ramadas or in other shade. They secure their share of precious water

[text continues on p. 194]

123 the same as do children and dogs, even though it may be hauled for
[132] six or eight miles on mule-back.
[137]

With gifts and hand-shaking all around, we bade goodbye to Lupe and the children and started on our way.

After leaving San Carlos we travelled through a cholla and giant cactus country until we reached Roberto's ranch at Santa Cruz. We had picked up Pancho Oliverria at San Carlos.

Just before leaving the ranch several men lifted a poor woe-begone mare to her feet. She was so poor and weak she could not get up by herself, but once up she managed to stand and finally staggered out into the *mesquital*, the place of mesquite. One eye was missing and watery matter was oozing out and running down her cheek. A night or two before, a lion caught and destroyed her colt, and probably in an effort to protect it the mare came too near the scene and the lion tore out her eye with one sweep of its paw.

Midway to Santa Cruz we stopped a moment at Blevens ranch *Costa Rica*. Blevens is a large, florid white-haired American who has lived in this country for fifteen or twenty years and hasn't much use for the Seris as they have killed so much of his stock.

[24] At one time he noticed a dead cow which was all swelled up and badly spoiled. No white man could stand the smell. He told some Seris about it, and they flocked around it, and when they had finished all that was left were the hoofs and horns.

Nene's wife cooked dinner for us at their house which was composed of *carrizos* and mud roofed with earth, all supported by mesquite logs. Surrounding it was a hog tight mesquite fence, and in this corral was a fifty-foot deep well which furnished the water supply. Half a bull's hide laced on to an iron hoop and holding about fifteen or twenty gallons, was the water bucket. This was hauled up by a long rawhide rope passing through an over-head block drawn by a mule.

After leaving Santa Cruz with none added to our crew, we wended our way through a maze of mesquite, cottonwood and other timber, gradually working out of the timber to more open country where traveling was not so strenuous. The steering gear was worn so that the old truck would often head for a saguaro or mesquite and stop just short of being smashed.

At last we reached a region of flat baked lake-beds, covered in flood times. Sometimes we could travel fast at fifteen miles and then again we would go in the low where it was soft. About three miles from our destination we took off half our load and piled it to one side and jogged along through a wild desert country with no roads or trails, through chollas, desert brush and terote trees.

123 When we neared a hill of dark volcanic rock a number of Seri In-
312 dians darted out, and with their help we reached a camp near the coast
361 where Roberto had recently located a small well of sweet water.